

International application No. PCT/US00/16135

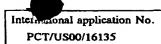
A. CLAS	. CLASSIFICATION OF SUBJECT MATTER			
IPC(7) :C07K 14/71 14/60; C12N 15/18; A61K 38/25 US CL : 512/2, 12; 530/300, 324, 350; 536/23.1, 23.5, 23.51				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols)				
U.S. : 512/2, 12; 530/300, 324, 350; 536/23.1, 23.5, 23.51				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
MEDLINE, EMBASE, CAPLUS, INPADOC search terms: ghrh, growth hormone releasing hormone, chicken, gallus, thorner m				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where app	propriate, of the relevant passages	Relevant to claim No.	
x	MCRORY et al. Expression and alterna gene encoding both growth hormone-rele adenylate cyclase-activating polypeptide January 1997, Vol. 16, No. 1, pages 9:	easing hormone and pituitary e. DNA and Cell Biology.	1, 3, 14	
x	PORTER et al. Ontogeny of growth he during chicken embryonic development responsive to GH-releasing hormone. Vol. 136, No. 5, pages 1850-1856, esp	ormone (GH)-secreting cells nt: Initial somatotrophs are Endocrinology. May 1995,	1, 3, 14	
T Form	ther documents are listed in the continuation of Box C	. See patent family annex.		
	a Social extension of cited documents: "T" later document published after the international filling late or priority			
1-A- d	locument defining the general state of the art which is not considered	date and not in conflict with the ap- the principle or theory underlying the	plication but cited to understand as invention	
	o be of particular relevance earlier document published on or after the international filing date	"X" document of particular relevance; t	he claimed invention cannot be lered to involve an inventive step	
1	document which may throw doubts on priority claim(s) or which is itted to establish the publication date of another citation or other	when the document is taken alone		
	special reason (as specified) document referring to an oral disclosure, use, exhibition or other	"Y" document of particular relevance; to considered to involve an inventive combined with one or more other subering obvious to a person skilled in	e step when the document is such documents, such combination	
.p-	means document published prior to the international filing date but later than	*& document member of the same pate		
	the priority date claimed ne actual completion of the international search	Date of mailing of the international s	earch report	
28 AUGUST 2000		19 SEP 2	000	
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231		Authorized officer CLAIRE M. KAUPMAN	Brudges	
Facsimile No. (703) 305-3230		Telephone No. (703) 308-0196		



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ategory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
	WO 98/32857 A1 (UNIVERSITY OF VICTORIA INNOVATION	1, 3, 7, 14
•	AND DEVELOPMENT CORPORATION) 30 July 1998, see entire	******
	document, especially SEQ ID NO:4.	9, 10, 13
	US 5,695, 954 A (SHERWOOD et al.) 09 December 1997, see	1-6, 9-14, 16
4	entire document, especially SEQ ID NO: 25 and 8.	
		1.7.0.14.16
	WO 94/00482 A1 (THRONER et al.) 06 January 1994, see entire document.	1-7, 9-14, 16
	document.	
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		1
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)			
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:			
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:			
2. X Claims Nos.: 8 and 15 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: No SEQ ID NO:7 existed for the CRF or paper copy of the Sequence Listing. There is no claim 15.			
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).			
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)			
This International Searching Authority found multiple inventions in this international application, as follows:			
Please See Extra Sheet.			
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.			
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.			
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:			
4. X No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-16			
Remark on Protest The additional search fees were accompanied by the applicant's protest.			
No protest accompanied the payment of additional search fees.			

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s)1-7, 9-14 and 16, drawn to GHRH ligand and receptor polypeptide and nucleic acid and method of enhancing feed utilization or growth and of production of lean muscle mass.

Group II, claim(s) 17, drawn to transgenic avian with ligand.

Group III, claim(s) 18, drawn to transgenic avian with receptor.

Pursuant to 37 C.F.R. 1.475(d), this Authority considers that the main invention in the instant application comprises the first-recited product, ligand that binds GHRH receptor of SEQ ID NO:4, and the first-recited method of using that product. Also added to the first group is the GHRH receptor (SEQ ID NO:4), and encoding nucleic acid for each product. Further, pursuant to 37 C.F.R. 1.475 (b)-(d), the ISA/US considers that the materially and functionally dissimilar product of Groups II and III do not correspond to the main invention. This Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.